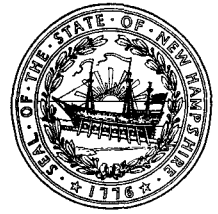




The State of New Hampshire
Department of Environmental Services



Michael P. Nolin
Commissioner

January 28, 2004
Letter of Deficiency
DSP#04-010

Mr. Jim Stone
Superintendent
Hanover Water Works
Box 1006
Hanover, NH 03755

RE: Upper Reservoir Dam #108.06, Hanover

Dear Mr. Stone:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on October 16, 2003. During this visual inspection and/or file review, the following deficiencies were observed:

1. There was minor cracking in the right downstream training wall as was observed in the 1979 Phase 1 Inspection Report. The cracking did not appear to have significantly changed since 1979;
2. The historic seepage below the concrete overflow spillway appeared to be similar to past conditions;
3. There were two 1 foot deep holes (possible rodent holes) at the upstream crest of the dam approximately 200 feet right of the overflow spillway;
4. Several trees including a large pine tree were observed at the far right abutment of the dam;
5. The far right pin of the flashboards has a solid piece of rebar inserted into it and the original approved design requires the placement of 3/4" standard steel pipe with boards at 1.4 feet high;
6. The soils adjacent to the left side training wall was observed to have settled approximately 18 inches.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

July 1, 2004:

1. Repair the two 1 foot deep holes at the upstream crest of the dam approximately 200 feet right of the overflow spillway;
2. Remove the trees including a large pine tree at the far right abutment of the dam and within 10 feet right of the abutment;

Letter of Deficiency
Dam#108.06/DSP#04-010
January 28, 2004
pg. 2

3. Replace the flash pins in accordance with the original design. It should be noted that changes to the original design would need to be permitted through the dam bureau;
4. Fill the settlement adjacent to the left side-training wall with properly compacted material;

On a continuing basis:

5. Monitor and repair, as necessary, the crack in the right downstream training wall; and
6. Monitor the seepage at the base of the overflow spillway and repair as necessary.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the bottom of the cover page.

Sincerely,



Dale F. Guinn, P.E.
Dam Safety Engineer

Attachments DB8, DB13

cc: Gretchen Rule ✓

Town of Hanover

Certified # 7000 1670 0000 0586 2800

DFG/was/h:/safety/wendy/lod/108-06lod.doc